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Patient A

Pat B

US-PAT-NO: 5325293

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TITLE: System and method for correlating medical procedures and medical billing codes

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INVENTOR-INFORMATION:

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U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL		
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ART-UNIT: 231

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ABSTRACT:

A method and a system for performing the inventive method are provided to correlate billing codes with planned or performed medical procedures. The method comprises the steps of determining raw codes directly associated with all of the medical procedures performed or planned to be performed with a particular patient examination, and manipulating the raw codes by the steps of a final common pathway to generate intermediate codes without altering the raw codes. The method also comprises the step of determining the billing codes from the intermediate codes.

23 Claims, 42 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 42

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Abstract Text - ABTX (1):

A method and a system for performing the inventive method are provided to correlate billing codes with planned or performed medical procedures. The method comprises the steps of determining raw codes directly associated with all of the medical procedures performed or planned to be performed with a particular patient examination, and manipulating the raw codes by the steps of

a final common pathway to generate intermediate codes without altering the raw codes. The method also comprises the step of determining the billing codes from the intermediate codes.

Brief Summary Text - BSTX (7):

Some medical specialists find the CPT coding system difficult to use because many modern medical specialties fall within several of the enumerated rubrics. For instance, Interventional Radiologists ("Interventionalists") especially view the new coding system as arduous because interventional radiology crosses many radiological and surgical sub-specialties, each of which falls under a specific CPT coding system rubric. For instance, if a radiologist examines a patient's left vertebral artery, the corresponding CPT codes for the examination would contain both Surgical codes and Radiology codes. Specifically, the CPT codes for this examination would be 36216 for the surgical component of the examination and 75685 for the radiological component of the examination.

Brief Summary Text - BSTX (12):

Additionally, physicians and clerical personnel often do not accurately translate the performed medical procedure into the CPT coding format because of the complexity of the CPT coding system. For example, if a radiologist examines a right vertebral artery by arteriography, including a vascular injection, one particular CPT code would correspond to the vascular injection. However, if the radiologist additionally examines a patient's right common carotid, a different CPT code would correspond to the vascular injection associated with the examination of the patient's right vertebral. In many situations, a straight reading of the CPT code will not provide the proper billing code and the physician or clerical personnel must review an entire CPT rubric to determine the proper billing code, or must memorize how certain procedural codes interact. Memorizing all of CPT codes applicable to the physicians' practice, however, would be impracticable (in the case of the interventionalist, it would be impossible), and using a truncated, but manageable list would be inaccurate. Thus the physician is forced to learn the workings of each applicable CPT rubric, a tedious and time consuming task, exacerbated by the fact that the CPT codes commonly change from year to year.

Brief Summary Text - BSTX (13):

The CPT coding system is also imprecise in some areas and the physician and/or clerical personnel must learn to compensate for the inexactness of the CPT coding system. For instance, if a radiologist examines a patient's celiac and superior mesenteric arteries, the CPT coding system does not provide separate codes for these vascular families. Moreover, the CPT coding system does not provide separate codes for examination of particular vessels within these vascular families. The physician and/or clerical personnel must therefore realize that a duplicate CPT code for this procedure would be appropriate and code the examination accordingly.

Brief Summary Text - BSTX (15):

Thus, a need exists for a method and a system for implementing the method for rapidly and simply correlating CPT codes with medical procedures performed during a patient examination which does not require a thorough understanding of the nomenclature used by the CPT coding system.

Drawing Description Text - DRTX (8):

FIGS. 6A and 6B are representations of several illustrative screen displays generated by the interactive program showing additional parameter screens related to patient care;

Detailed Description Text - DETX (6):

At an initial screen, as illustrated in FIG. 2A, the interactive program gives the user a choice of entering an examination for a new patient or recalling an examination for a previous patient. If the user chooses a new patient, the interactive program requests the user to enter the new patient's demographics, as illustrated in FIG. 2B. Although the user does not have to enter data into every field on the demographics screen, the patient's medical record number and name should be entered before exiting the screen. After entering the data in the appropriate fields, the user inputs the data by clicking the mouse button with the cursor on the "accept" button 120.

Detailed Description Text - DETX (7):

If the user chooses a previous patient, the user enters either the name or identification number of the previous patient, as requested by the interactive screen illustrated in FIG. 2C. The interactive program then recalls the demographics for the previous patient. The user of the interactive program can set a desired field length of the identification number to customize the program. If the user enters the last name of the patient, the interactive program will display all patients with that last name in a scroll-type menu 124 as illustrated in FIG. 2D.

Detailed Description Text - DETX (8):

Referring to FIG. 2E, the interactive program requests the user to select a new examination or recall a previous examination after choosing a patient. For a new examination, the interactive program displays a series of dialogue boxes to request data about the examination. The user is asked to enter the date of the examination and the name of the radiologist and of the referring physician. Specifically, after entering the name of the radiologist or referring physician, the interactive program will display a list of radiologists or referring physicians contained in memory, as illustrated by FIGS. 2F and 2G, respectively. If the particular doctor is presently in the memory file, the user highlights the name of the doctor and accepts the data. If, however, the radiologist or referring physician is not contained in the memory file of the interactive program, the interactive program requests the user to input the

demographics for the radiologist and/or referring physician, as illustrated in FIGS. 2H and 2I. Alternatively, if the interactive program recognizes the names of the radiologist and referring physician, the interactive program will request the user to verify the selection.

Detailed Description Text - DETX (9):

To recall a previous examination, the user selects the PREVIOUS EXAMS button 128 (FIG. 2E) via the mouse controlled cursor. The interactive program will then display a list of previous examinations for the previously selected patient, as illustrated in FIG. 2J.

Detailed Description Text - DETX (10):

After the user has selected a patient and has either entered the preliminary data for a new examination or recalled the data from a previous examination, the interactive program displays a Main Menu screen, as seen in FIG. 3A, which includes six procedural group buttons corresponding to major categories of interventional work. These categories are: Arteriography, Cardiac, Interventional, Miscellaneous, Patient Care and Venography. As illustrated in FIG. 3B, if the user moves the cursor over any of the procedural group buttons, the interactive program flashes a related procedure menu on the left side of the screen.

Detailed Description Text - DETX (20):

The interactive program also requires the user to input subjective parameters to determine the CPT codes for some patient care procedures. For instance, if the user selects an initial patient consultation button 164, as illustrated in FIG. 6A, the interactive program requests that the user indicate the level of difficulty in determining a diagnosis. As illustrated in FIG. 6B, the interactive program provides the user with choices of varying levels of difficulty. After receiving a selection from the user, the interactive program re-displays the examination screen illustrated in FIG. 6A.

Detailed Description Text - DETX (21):

After the user inputs all procedures planned or performed, the user can save the examination data record. To save the examination data, the user clicks on a SAVE hotword 168 in the top field 150 of the screen display, as shown in FIG. 3A. This will store the examination data on the hard disk, creating a unique examination record for the particular patient examination. If the user attempts to exit an examination before saving the data, the interactive program will remind the user to save the data before it is lost. The interactive program will then save the data or will require additional information from the user, depending upon the "status" of the examination record.

Detailed Description Text - DETX (25):

When an examination is first saved with the status of PERFORMED, the interactive program asks the user the following questions: "Was the patient an outpatient or an inpatient?"; "Was the examination a success?"; "Was the examination a teaching case?"; "Were there any complications associated with the examination?" If the user answers the last question "yes," the interactive program displays a list of complications, as illustrated in part in FIG. 7. The user can select any number of items on the list by clicking on those particular items. Additionally, the user can enter specific data regarding complications not enumerated by the list.

Detailed Description Text - DETX (26):

Referring to FIGS. 3A and 8A, when the user clicks a REVIEW hotword 180 in the top field 150, the interactive program searches for all performed examinations and displays the review screen, as illustrated in FIG. 8A. For each examination, the review screen shows the patient's name and medical record number, the examination date, the name of the radiologist and of the referring physician, the examination status (always performed), and the selected procedures with their associated CPT codes.

Detailed Description Text - DETX (30):

If the user clicks on the SKIP button 184, the interactive program displays a new patient examination for review without altering the performed status of the skipped examination. Any changes made by the user during the review function to an examination later skipped, will not be saved; the skipped examination is left intact, as if it had never been reviewed.

Detailed Description Text - DETX (34):

Referring to FIG. 3A, the Main Menu also contains a plurality of hotwords in the top field 150, a number of which have been previously described. The BACK hotword 188 allows the user to skip back a stage in the entry of examination data. The DEM hotword 190 displays the demographics for the patient of the open examination file. Clicking on the OLD 192 hotword brings up all examination files with a planned status but with an examination date prior to the current date. Clicking on COMPS 194 allows the user to view, modify or enter complications in the open examination file. The CUSTOM hotword 196 lets the user enter custom codes for specific procedures. The SETUP hotword 197 lets the user set up parameters used by the interaction program. Clicking on FLASH 198 turns off the flashing function of lower level screens. Finally, clicking on the STATS hotword 199 takes the user to the statistics screen of the interactive program. The interactive program preferably contains statistical features to track complicated cases, cases for each radiologist, cases by particular CPT codes, etc. The hotwords provide the user with easy access to these features of the interactive program.

Detailed Description Text - DETX (35):

The interactive program generates the appropriate CPT codes associated with

the procedures and procedure parameters input by the user by implementing a series of method steps comprising a final common pathway. An exemplary flow chart of an initial sequence of selecting a patient examination record and of the final common pathway in accordance with the present invention is illustrated in FIGS. 9A through 9J.

Detailed Description Text - DETX (36):

Referring to FIG. 9A, the interactive program begins at the START block 200 and proceeds to a first decision block 204 where the interactive program responds to the users selection between a new patient and a previous patient. FIG. 2A illustrates the initial screen display generated by the interactive program requesting the user to make this selection. Referring back to FIG. 9A, if the user selects a new patient, the interactive program proceeds to an activity block 208 and receives patient demographics data input by the user. The interactive program then proceeds to a decision block 212 where the interactive program requests the user to accept the entered patient demographics data. If the user accepts the entered data, the interactive program creates a patient file and stores the patient demographics data to a specific system variable 214 (FIG. 1). The interactive program then proceeds to a decision block 216. If the user does not accept the entered data, the interactive program returns to the preceding decision block 204.

Detailed Description Text - DETX (38):

Returning to the first decision block 204, if the user selects a previous patient, the interactive program proceeds to an activity block 218 and requests that the user enter the desired patient's name or medical identification number, as illustrated in FIG. 2C. Referring back to FIG. 9A, the interactive program then proceeds to a decision block 222 where the interactive program requests the user to accept the entered patient identification data. If the user accepts the entered data the interactive program retrieves the selected patient file and proceeds to the decision block 216. If the user does not accept the entered data, the interactive program returns to the initial decision block 204.

Detailed Description Text - DETX (39):

After determining a specific patient file, the interactive program proceeds to the following decision block 216 to select a particular examination record. The interactive program responds to the user's selection between a new examination and a previous examination. FIG. 2E illustrates the screen display generated by the interactive program requesting the user to make this selection.

Detailed Description Text - DETX (41):

Returning to the decision block 216, if the user selects a previous examination record, the interactive program recalls all examination files within the selected patient's file. The interactive program then proceeds to

an activity block 236 and requests that the user select the desired examination, as illustrated by the screen display in FIG. 2J. After determining the specific examination record, the interactive program proceeds to an activity block 240 where the interactive program recalls the previous examination record and proceeds to the activity block 232 (FIG. 9B).

Detailed Description Text - DETX (42):

After determining the specific examination record, the user enters the procedures that where involved during the patient examination. Specifically, the user selects between the major procedural categories illustrated by the screen display of FIG. 3A. Referring to FIG. 9B, the interactive program receives the user's selection at the activity block 232 and proceeds to an activity block 244 where the interactive program receives the user's selection of the specific procedural category (FIG. 3B). After receiving the specific procedural category, the interactive program displays an examination screen containing procedural selections for the user and proceeds to an activity block 248. When the user selects a first procedure, the interactive program advances to a decision block 252 where the interactive program decides if any additional parameters are required to determine the raw code associated with the selected procedure. As used herein, "raw code" refers to a string of numeric and alphanumeric characters which act as a low level code between the selected procedure and the associated CPT code. An "intermediate code" refers to a code that is generated from manipulating the raw code by the steps of the final common pathway. A "final code" refers to the CPT code associated with the selected procedures. If additional parameters are required to determine the raw code associated with the selected procedure, the interactive program proceeds to an activity block 256 and requests the user to enter the required additional parameters. Examples of requests for additional parameters are illustrated by the screen displays of FIGS. 5C, 5E, and 6B. From the activity block 256, the interactive program advances to an activity block 260.

Detailed Description Text - DETX (69):

After saving the examination record to the hard disk, the interactive program requests that the user indicate whether the user wants to view or create an examination record for another patient. Specifically, the interactive program proceeds to a decision block 392 and inquires whether the user wants to change patients. If the user wants to view or create an examination record of another patient, the interactive program returns to the initial decision block 204 (FIG. 9A). If the user wants to view or create another examination record for the same patient, the interactive program returns to the decision block 216 (FIG. 9A). The user also has the option to exit the interactive program at this stage or at any other stage of the interactive program by clicking on the QUIT hotword in the screen top field 150 (FIG. 3A).

Detailed Description Text - DETX (80):

The final common pathway described above allows the interactive program to generate the CPT codes and RVU values associated with the selected medical

procedures. The final common pathway accounts for interaction between many CPT codes without modifying each raw code associated with each procedure. Consequently, the final common pathway of the interactive program keeps track of associated codes as the user constantly changes selected procedures. Additionally, the interactive program is able to reproduce the exact examination screen by storing all information required to reproduce the screen with the particular patient examination record.

Claims Text - CLTX (78):

providing a collection of relative value units associated with the CPT billing codes;

Claims Text - CLTX (79):

recalling specific relative value units associated with said set of CPT billing codes stored in the memory location of the processing unit; and